

Treatment of uncomplicated gonorrhoea in women with talampicillin in a single oral 1.5 g dose*

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SUMMARY Four hundred and sixty women with uncomplicated gonorrhoea were treated with a single oral dose of 1.5 g talampicillin. The success rate among those who attended for at least one follow-up examination after treatment was 99.14%. The antibiotic was well tolerated and no side effects were reported. Talampicillin given under supervision has proved to be the most effective and safest treatment in this area. A smaller dosage of talampicillin than ampicillin is required, the drug is better tolerated by the patient, and the time of nursing staff is saved.

Introduction

Talampicillin, the phthalidyl ester of ampicillin, is well absorbed from the gastrointestinal tract. During absorption it is hydrolysed by non-specific esterases to release ampicillin, thus increasing the bioavailability of ampicillin to three times the values achieved with an equivalent dose of ampicillin.¹ Ampicillin has now become recognised worldwide as a standard single-dose oral treatment.² Moreover, the penicillin group of antibiotics exerts its influence on the logarithmic phase of gonococci, which is very short (30-40 minutes), and the number of ampicillin-sensitive strains of gonococci have increased favourably during the late 1970s.³ Talampicillin has been used with great success in the treatment of gonorrhoea in men.^{2,4,5} Since no similar study has so far been reported in women, we decided to undertake a clinical trial with talampicillin in a single oral dose of 1.5 g for the treatment of uncomplicated gonorrhoea in women.

Patients and methods

CLINICAL DATA

Four hundred and ninety-six women with uncomplicated gonorrhoea diagnosed by microscopy of Gram-stained smears and confirmed by culture were included in the study. Of these, 477 (96.16%) were British, 389 (78.4%) were single, and 221 (44.55%) were aged 20-24 years. Ninety-two (18.54%) women

had vaginal discharge, vaginal irritation, and dysuria; 44 (8.87%) had had gonorrhoea in the past; 347 (69.9%) attended the clinic with contact slips; and 476 (95.97%) had acquired the disease locally.

DIAGNOSIS

All patients had a genital examination performed at their initial visit and subsequently during follow up. In 421 (84.87%) patients both microscopy of cervical and urethral smears and culture results for *Neisseria gonorrhoeae* were positive, and in 75 (15.1%) culture results alone were positive. Patients whose results for Gram-stained smears were positive and whose culture results were negative were excluded from the study. Microscopy of wet-mount preparations and culture of vaginal specimens were performed to exclude *Trichomonas vaginalis* and *Candida albicans*. Serological tests for syphilis were carried out on all patients at their initial visit and repeated 4-6 weeks later and, when possible, after three months.

TREATMENT AND FOLLOW UP

All 496 patients were treated with talampicillin 1.5 g in a single dose. The importance of follow-up examination was explained to the patients at their initial visit and reattendance was requested seven, 14, 28, and 42 days after the first day of treatment. These intervals were not always rigidly observed. Patients were advised to avoid sexual intercourse until the results of three consecutive sets of tests were negative and to abstain from alcohol for 48 hours; these restrictions were probably not always adhered to.

Results

Of the 496 women treated with 1.5 g talampicillin 460 attended at least one follow-up examination after

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TABLE Comparison of results of single-dose oral treatment of uncomplicated gonorrhoea in women

Treatment	No of cases followed	Failure rate		Study	Year
		No	%		
Ampicillin 2 g + probenecid 1 g	393	9	2.3	Brø-Jorgenson and Jensen ⁷	1972
Amoxicillin 1 g + probenecid 1 g	37	5	21.7	Thin <i>et al</i> ⁸	1977
Rifampicin 300 mg	42	6	8.6	Panduro ⁹	1971
Co-trimoxazole*	275	17	6.1	Rahim ¹⁰	1975
Vibramycin 300 mg	219	10	5.7	Enfors and Eriksson ¹¹	1975
Pivampicillin 1.4 g + probenecid 1 g	79	2	2.5	Forström ¹²	1974
Ampicillin 1 g + probenecid 1 g	546	9	1.55	Roy (unpublished data)	1977
Talampicillin 1.5 g	460	4	0.86	Present study	1980

*Trimethoprim 640 mg + sulphamethoxazole 32 g

treatment. Only four (0.86%) treatment failures occurred during the second week after treatment, and 20 (4.3%) recurrences in patients who admitted to further sexual exposure with casual or untreated partners were cured with the same dosage of talampicillin. These 20 patients were probably reinfections. No side effects were reported by any of the patients.

Discussion

Ampicillin with or without probenecid has been proved to be successful in the treatment of uncomplicated gonorrhoea in men.⁶ The present study showed that talampicillin gave a very high cure rate (99.14%) in uncomplicated gonorrhoea in women probably because almost all the patients acquired the infection locally and all the strains were sensitive to talampicillin (MIC = 0.03 µg/ml). None of the isolates from the four treatment failures produced β-lactamase, and all four were resistant to penicillin (MIC = 0.25 µg/ml). These strains were acquired outside the locality (Bangkok, Middlesborough, Liverpool, and London). All four patients responded to 4 g spectinomycin intramuscularly.

The results with talampicillin alone in the treatment of uncomplicated gonorrhoea in women thus proved to be superior to those obtained with single doses of other antibiotics (table). The high cure rate may not be achieved in other countries or indeed in the large conurbations of Britain, since the prevalence of highly insensitive strains of *N gonorrhoeae* varies in different areas. With variations in the sensitivity pattern of gonococci in the future, this single-dose regimen may possibly become less suc-

cessful. Its performance must therefore be monitored regularly by determining the clinical failure rate and the sensitivity of the isolates.

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